

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Autocam Corporation

Ohio Manufacturing Extension Partnership

TechSolve Grinding Experts Help Autocam Team Realize New Production Records With Setup Solutions

Client Profile:

Autocam Corporation, based in Kentwood, Michigan, specializes in precision-machined solutions for customers in the automotive market, handling major projects from start to completion. The company was founded in 1988. It has grown rapidly to 2,300 employees in 13 locations through a combination of long-term customer relationships, aggressive marketing and strategic acquisitions, which include well-established companies in North America, Europe and South America. The Kentwood location employs 270 people. Though the automotive market is Autocam's primary focus, the company has successfully branched out into other markets including medical devices and consumer products.

Situation:

Autocam faced a set of challenges in its centerless grinding operation of Lower Guide components for Fuel Injectors. Starting with the original setup parameters that had been recommended by the machine manufacturer, Autocam was experiencing an unstable, inefficient and costly effort to achieve correct-size components for this customer's operation. The inconsistency in the size of the parts from shift-to-shift or day-to-day created significant costs for machine downtime, labor overtime for sorting out wrong-size parts, rework to meet delivery numbers of correct-size parts, and the expense of excess scrap. Correct parts per 12-hour shifts were averaging 30,000 to 90,000. Despite persistent efforts by Autocam's operators to find the optimal mix and balance of adjustments that would eliminate the instability, the problems continued to plague the operation. Autocam contacted TechSolve, a NIST MEP network affiliate, for help.

Solution:

The TechSolve grinding experts made two three-day visits to the Autocam facility in Kentwood, Michigan, over a period of three months to observe, diagnose, and help implement recommendations. TechSolve's solutions involved multiple integrated setup parameters and adjustments to the regulating wheel, the tooling, overhead guide and loading systems. The TechSolve team helped Autocam operators identify, integrate and implement at least 12 adjustments and changes that helped them consistently produce the desired quantity of fuel injector parts at the correct size, on time.

Results:

- * Retained key customers.
- * Produced record number of pieces--182,000 pieces in 12 hours.
- * Increased parts per dress from 30,000 to 90,000.
- * Eliminated scrap, re-work, and machine downtime.
- * Achieved cost savings of \$20 million.

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Testimonial:

"We appreciated how the TechSolve grinding consultants approached our challenge like a part of our team. Through their hands-on, logical engineered solutions, TechSolve brought us relief for what had become an overwhelming headache. The \$20 million in cost savings TechSolve helped us to achieve speaks for itself."

John Giles, Manufacturing Engineer